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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,137	01/23/2004	Constantin Chassapis	7604/51/1	6096

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EXAMINER	
PARK, JEONG S	
ART UNIT	**PAPER NUMBER**
2154	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/764,137	CHASSAPIS ET AL.	
	Examiner	Art Unit	
	Jeong S. Park	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32,34 and 35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-32, 34 and 35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/9/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 1-32, 34 and 35 are objected to because of the following informalities:

In claim 1, line 7, the word "bytecodes" should be corrected as –byte codes--. Similar correction should be made for claims 21, 23-26, 34 and 35;

In claim 1, line 8, the phrase "a universal controller" should be corrected as –the universal controller-- for clear understanding of the claim;

In claim 13, line 1, the phrase "the user" should be corrected as –a user-- for clear understanding of the claim;

In claim 16, line 1, the phrase "the plurality of devices" should be corrected as –the plurality of remote devices-- for clear understanding of the claim; and

Claims 34 and 35 should be renumbered as 33 and 34 respectively.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-6, 8-14 and 18-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Hesselink et al. (hereinafter Hesselink)(U.S. Patent No. 6,499,054 B1).

Regarding claim 1, Hesselink teaches as follows:

a remote access system (a method and system for enabling multiple users from different physical locations to access, observer, control and manipulate physical processes and devices over a computer network, see, e.g., abstract) comprising:

a user interface (keyboard 12, mouse 18 and monitor 16 in figure 1A, see, e.g., col. 3, lines 6-17) for entering a high-level instruction (request/commands implemented in any object-oriented and network-enabled software development environment such as C++ or JAVA) for controlling a remote device (physical process 110 in figure 1B)(client provides a graphical user interface for the end users of the physical process, see, e.g., col. 8, lines 46-53);

a plurality of remote devices (physical process, 110 in figure 1B, see, e.g., col. 3, line 61 to col. 4, line 10);

one or more universal controllers (connection handler, which is part of the connection server, is a class or object in object-oriented programming terminology which can perform readings from and writing to each of the connections, see, e.g., col. 7, lines 15-21) connected to the plurality of remote devices (physical process 110 is connected after lab server 112 in figure 1B)(the connection server maintains network connections with all the processes, namely lab server, database server and clients, see, e.g., col. 7, lines 15-21); and

a resource manager (connection server 114 in figure 1B) connected to the one or more universal controllers (connection handler), the resource manager monitoring system status information (the connection server monitors the status of network

connections throughout the entire process, see, e.g., col. 4, lines 25-34), receiving the high-level instruction from the user interface (user request/commands that are received from the UI components are encoded into DNP packets to be sent to the connection server, see, e.g., col. 8, lines 54-64), compiling the high-level instruction into one or more bytecodes (encoding user request/commands into DNP packets, see, e.g., col. 8, lines 54-64), identifying an appropriate universal controller and automatically dispatching the bytecodes to a universal controller for execution thereby, the bytecodes controlling one or more of the plurality of remote devices (connection handlers in the connection table are found based on the destination ID in the DNP overhead section and then all DNP packets are sent to all destinations via the connection handlers found in the connection table, see, e.g., col. 8, lines 12-45).

Regarding claims 2, 3, 23 and 24, Hesselink teaches as follows:

the plurality of remote devices comprises sensors, wherein the sensors comprise electromechanical, optical, acoustic, seismic, magnetic, moisture, pollution, organic, pressure, acceleration, physiological, or thermal sensors (see, e.g., col. 3, line 61 to col. 4, line 10 and col. 5, line 64-67).

Regarding claims 4, 5, 25 and 26, Hesselink teaches as follows:

the plurality of remote devices comprises actuators, wherein the actuators comprise electric motors, pneumatic drives, hydraulic drives, electromagnetic drives, pumps, valves, fans, relays, or switches (see, e.g., col. 3, line 61 to col. 4, line 10 and col. 5, line 64-67).

Regarding claims 6 and 27, Hesselink teaches as follows:

a multiplexer for connecting the plurality of remote devices to the universal controller (connection handler embedded in the connection server)(the connection server supports full duplex point-to-point and point-to-multipoints data transmissions between the clients, lab server and database sever, see, e.g., col. 4, lines 25-33, therefore inherently supports multiplexing functionality).

Regarding claims 8, 9, 28 and 29, Hesselink teaches as follows:

the one or more universal controllers automatically detect and integrate additional devices connected thereto (connection monitor establishes a connection with a lab server and is performed periodically to check whether a lab server is connected, see, e.g., col. 7, lines 37-65), wherein the one or more universal controllers automatically provide status information about the additional devices to the resource manager (the main function performed by the connection server is monitoring and maintaining reliable network connections with all active clients, and lab servers, see, e.g., col. 7, lines 5-14, the connect server monitors the status of network connections throughout the entire process, see, e.g., col. 4, lines 25-34).

Regarding claim 10, Hesselink teaches as follows:

a computer program written at the user interface, the computer program including a plurality of high-level instructions for controlling one or more of the plurality of remote devices (the request/instruction is executed by calling the functions of the user interface components, see, e.g., col. 9, lines 65-15, the clients is implemented in any object-oriented programming language, see, e.g., col. 8, lines 46-53).

Regarding claims 11-13, 30 and 31, Hesselink teaches as follows:

the resource manager further comprises a library (interpreted as functions of methods of UI components) of high- level instructions, wherein the library is accessible via the user interface, wherein the user can select a high-level instruction from the library for execution by the one or more universal controllers (the request/instruction is executed by calling the functions of the user interface components, see, e.g., col. 9, lines 65-15, the clients is implemented in any object-oriented programming language, see, e.g., col. 8, lines 46-53, the library functionality is inherently provided with any object-oriented programming language).

Regarding claims 14 and 22, Hesselink teaches as follows:

the one or more universal controllers provides status information (the connection server monitors the status of network connections throughout the entire process, see, e.g., col. 4, lines 25-34) and results of execution to the resource manager (the connection server supports full duplex data transmissions between the clients and lab servers, see, e.g., col. 8, lines 1-11).

Regarding claim 18, Hesselink teaches as follows:

the universal controller executes loops of instructions (the connection server supports full duplex data transmissions between the clients and lab servers, see, e.g., col. 8, lines 1-11).

Regarding claim 19, Hesselink teaches as follows:

the universal controller (the connections server can be run in the same computer where the lab server, see, e.g., col. 7, lines 5-6) executes mathematical computations (the lab server performs computational analysis, see, e.g., col. 6, lines 10-34).

Regarding claim 20, Hesselink teaches as follows:

the universal controller stores to and reads from local and remote memory (the connection server stores data to and from the database server 120 in figure 1B, see, e.g., col. 9, lines 25-47).

Regarding claims 21 and 32, Hesselink teaches as follows:

a method for allowing a user to remotely access a plurality of remote devices comprising (a method and system for enabling multiple users from different physical locations to access, observer, control and manipulate physical processes and devices over a computer network, see, e.g., abstract):

allowing the user to enter a high-level instruction at a user interface (keyboard 12, mouse 18 and monitor 16 in figure 1A, see, e.g., col. 3, lines 6-17, request/commands implemented in any object-oriented and network-enabled software development environment such as C++ or JAVA);

receiving the high-level instructions at a resource manager (connect server 114 in figure 1B)(user request/commands that are received from the UI components are encoded into DNP packets to be sent to the connection server, see, e.g., col. 8, lines 54-64);

compiling the high-level instruction into a plurality of bytecodes (encoding user request/commands into DNP packets, see, e.g., col. 8, lines 54-64);

choosing a universal controller connected to the resource manager based upon system status information; automatically dispatching the bytecodes to the universal controller based upon the instruction and status information corresponding to the universal controller; and executing the bytecodes to activate one or more of the plurality of remote devices (connection handlers in the connection table are found based on the destination IM in the DNP overhead section and then all DNP packets are sent to all destinations via the connection handlers found in the connection table, see, e.g., col. 8, lines 12-45);

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 7, 15-17, 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hesselink et al. (hereinafter Hesselink)(U.S. Patent No. 6,499,054 B1).

Regarding claims 7, 15-17, 34 and 35, Hesselink teaches as follows:

physical processes are defined as physical, biological and/or chemical processes or phenomena that can be detected, measured, quantified and/or controlled by electronic devices such as detectors, sensors, motors, power source (see, e.g., col. 4, lines 2-7);

the electronic devices that monitor and control the physical processes and communicate with computer that runs the lab server process (see, e.g., col. 4, lines 8-10); and

data from the physical processes are collected by the lab server and the lab server perform analysis and transformation of the collected data before sending (see, e.g., col. 4, lines 11-24).

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify the lab server and/or the connection server to include some functionalities in order to process the collected data between different type of devices. For example the analog to digital conversion is inherent in communication between an analog data measuring device and a computer.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeong S. Park whose telephone number is 571-270-1597. The examiner can normally be reached on Monday through Friday 7:00 - 3:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on 571-272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JP

December 20, 2007

NATHAN FLYNN
SUPERVISORY PATENT EXAMINER